sponding to this formula is also laid down, and its agreement with the adjusted value placed in evidence. The author concludes with some remarks on an error fallen into by Dr. Price, depending on the periodical payment of interest; and with a comparison of climacteric years, as taken from different tables.

Account of an Experiment on the Elasticity of Ice. By Benjamin Bevan, *Esq. In a Letter to Dr.* Thomas Young, *For. Sec. R.S.* Read April 27, 1826. [*Phil. Trans.* 1826, *p.* 304.]

Mr. Bevan took the opportunity of the severe frost of the last winter to determine the modulus of elasticity of ice, which he did by cutting a rectangular plate of that substance from the surface of a pond of 100 inches in length, 10 in width, and about 4 in thickness. The deflection produced by a weight of 25 lbs. was 0·206 inches, from which he concludes the modulus of elasticity to be 2,100,000 feet.

The modulus for water he states at 2,178,000 feet, on a certain hypothesis respecting its cubical compression.

Results of the Application of Captain Kater's *Floating Collimator to the Astronomical Circle at the Observatory of Trinity College, Dublin; and Remarks relative to those Results. By the Rev.* J. Brinkley, *D.D. F.R.S. P.R.I.A. Communicated by the Board of Longitude February* 2, 1826. Read April 27, 1826. [*Phil. Trans.* 1826, *p.* 307.]

Dr. Brinkley, in this communication, states a number of observations made with the floating collimator of Captain Kater, as applied to the Dublin circle, in which he observes it affords the means of ascertaining the index error with as great precision as by reversion, and that in several points of view it is undoubtedly superior to that method. The reversing principle of the Dublin circle, he observes, serves very conveniently for a measure of the accuracy of the floating collimator, and serves to show very satisfactorily, that applying this instrument to any circle will introduce no error depending on the collimator itself.

The author regards the results of these observations as highly favourable to the principle of the collimator, which he considers as a new astronomical power, and as even belonging to a more advanced era of practical astronomy than the present.

The observations consist of, First, the mean zenith distances of a number of stars, deduced solely by the application of the index correction, as determined by the collimator. In this case the circle was used as a mural circle, or rather as two mural circles, having been used with its face east and also west. Secondly, the inclination of the line of collimation of the collimator, as determined on different days. As this appears to have been very permanent (though such permanence is not essential in practice), he concludes that the collimator is applicable to the most powerful instruments. Thirdly,